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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,354	01/14/2004	Hartmut Schlichting	ZIMR/0008	3325

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EXAMINER

NGUYEN, KIET TUAN

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,354

Applicant(s)

SCHLICHTING, HARTMUT

Examiner

Kiet T. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,9-11,17 and 18 is/are allowed.
- 6) ☒ Claim(s) 2-8,12-16 and 19-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040906</u> . | 6) <input type="checkbox"/> Other: ____. |

Rejection Under 35 U.S.C. 112, Second Paragraph

Claims 2-8, 12-16 and 19-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite for reciting the limitation "preferably ... 500 times" in lines 3-4. What is the number that is claimed?

Claim 3 is indefinite for reciting the limitation "preferably ... said gas" in lines 3-4. What is the number that is claimed?

Claim 4 is indefinite for reciting the limitation "the desired ... and/or the region" in lines 2-3. Because the volume and the region are the different. What is the volume region of the specimen taken by the charged particle beam?

Claim 5 is indefinite for reciting the limitation "preferably ... mbar" in lines 3-4. What is the number that is claimed?

Claim 6 is indefinite for reciting the limitation "preferably ... tube" in lines 3-5. What is the number that is claimed?

Claim 7 is indefinite for reciting the limitation "preferably ... μm^2 " in lines 4-5. What is the number that is claimed?

Claim 8 is indefinite for reciting the limitation "preferably ... chamber" in lines 3-4. What is the location of the tubes that is within a common dispensing pressure chamber?

Claim 12 is indefinite for reciting the limitation "preferably ... $1/\text{cm}^2$ " in lines 3-4. What is the number that is claimed?

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Claim 13 is indefinite for reciting the limitation "the inner cross section ... D" in lines 2-3. How is the cross section characterized by the diameter?

Claim 14 is indefinite for reciting the limitation "preferably ... L" in lines 4-5. What is the number that is claimed?

Claim 15 is indefinite for reciting the limitation "preferably ... 20" in line 4. What is the number that is claimed?

Claim 16 is indefinite for reciting the limitation "preferably ... mbar" in lines 4-5. What is the number that is claimed?

Claim 19 is indefinite for reciting the limitation "preferably ... degrees" in lines 3-4. What is the number that is claimed?

Claim 20 recites the limitation "the ionized gas" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 is indefinite for reciting the limitation "preferably ... plates" in line 3. What is the number that is claimed?

Claim 22 recites the limitation "the final focus lens" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 is indefinite for reciting the limitation "the neutral gas ... gases" in lines 2-3. How does the neutral gas like?

Claims 1, 9-11 and 17-18 are allowed.

Claims 2-8, 12-16 and 19-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter

The prior art fails to disclose a charged particle beam device having a plurality of at least ten tubes for directing a gas toward a region of a specimen as recited in claim 1.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Frosien (6,182,605) discloses a charged particle apparatus having a plurality of nozzles for irradiating a gas to a specimen; and

2) Koyama (6,576,913) discloses a focus ion beam apparatus having a plurality of bundle nozzles for injecting gases onto a sample.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet T. Nguyen whose telephone number is 571-272-2479. The examiner can normally be reached on Monday-Friday from 8.00 AM to 6.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee, can be reached on Monday-Friday. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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KIET T. NGUYEN
PRIMARY EXAMINER